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Nevertheless Tertullian admits the division of the soul into *rationale* and *irrationale.* The distinction is not so sharp, however, as the *λογιστικόν* and the *ἄλολον* of Plato. Tertullian affirms that the soul, being from God, is rational by nature, and the property of irrationality is a corruption accomplished by the devil. And within the soul there is a dominant factor, a *ἡγεμονικόν*, having its seat in the heart. On the whole, however, "*huiusmodi autem non tam partes animae habebantur quam vires et efficaciae et operationes . . . non enim sunt substantiae animalis, sed ingenia,* etc.," each of which corresponds to a *πῶς ἔχον ἡγεμονικόν.*

In his theory of dreams and in his theory of the intuitive power of the soul, Tertullian closely follows the Stoics. The soul, being immortal, can never cease from activity; it neither needs repose nor could possibly take it. Sleep, far from hindering the spontaneity of the soul, leaves it free, just as *ὕπνος* was defined by Diogenes as the liberation of the soul from the service of the senses. Tertullian explains that during sleep the soul in the fullness of its liberty displays its full activity in dreams, which are states of ecstasy in which the gift of divination (*'periculi aut gaudii augurem'*) is enjoyed. In combating Hermogenes, Tertullian is willing to cite even Plato in order to prove the *'divinitas animae quae in praesagio erumpit.'*

The articles are provided with abundant references to the texts. Whoever should look them all up ought to find himself thoroughly *orientirt.*

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Hirnphysiologie und Willenstheorien. PAUL FLECHSIG. *Annalen der Naturphilosophie,* Bd. 4, Heft 4, 1905. S. 475–498.

By way of introduction to his discussion of the relation of body and mind, the author points out certain important stages in the progress of brain physiology. Constantin Varoli's belief that 'the mind of the animal resides in the substance of the brain' served as a stimulus toward efforts to localize brain functions. But the work of several generations of physiologists, whose chief contributions to their science were improvements of method, was completed before brain physiology really began to make progress. In the last third of the nineteenth century the silver method of Golgi and Cajal revealed structural facts which made possible the development of the present tendencies of neurology.

Pathology and embryology, especially the process of myelogenesis, and experiments with animals, have made numerous and invaluable contributions to our knowledge of the anatomy of the nervous system, its growth and significance. Comparative studies of the structure and functions of the nervous system have revealed facts concerning the brain cortex which render our knowledge of the relations of the various parts of the brain fairly satisfactory. These comparative studies uniformly indicate a parallelism between the structure of the nervous system and mental processes. Forms of mind, the author states, vary regularly with forms of brain. Although our knowledge of the details of this parallelism is incomplete, the progress of comparative neurology has brought us nearer and nearer to the old, but perennially interesting, problem of the relation of mind and body. Indeed, Flechsig thinks that the recent work of comparative psychologists and physiologists far outweighs all previous work in its value for the solution of this problem.

The author is not blind to the fact that many philosophers and scientists contend that psychology is independent of brain physiology, and can gain nothing from it. He, in fact, quotes Wundt to this effect, and then proceeds to attempt to prove that the contention is not justified by the history and status of our knowledge of brain and mind. The history of the development of the individual, the physiology of the brain and the attempted correlation of physiological and psychological facts have done much, in Dr. Flechsig's opinion, toward the analysis of complex psychological processes. Voluntary acts are chosen by the author as material for discussion, because their relation to consciousness is most insistently before us, and also because, in connection with them, has arisen the view that brain physiology may contribute to our knowledge of mental life. Proofs of the importance of brain physiology for psychology are furnished,—granting the assumptions which are implicit in the whole of the author's discussion,—by the work of Broca on motor aphasia, of Fritsch and Hitzig on localization in the cortex and of similar work by a number of investigators.

The startling discovery of the existence of motor centers by Varoli, and the progress in the direction of the localization of brain functions, have been, in a sense, carried to completion by the work of Sherrington on the anthropoid apes. It has been found that the number of motor centers constantly increases as one passes from the simple to the more complex forms of brain. Their number and the degree of differentiation reached are far greater in the chimpanzee and gorilla than in any of the lower mammalia, and the statements of surgeons indicate that a still greater differentiation is to be found in man.

A review of the facts of specialization of function within the brain, as indicated by the investigations of many prominent physiologists, is neither necessary nor desirable for the appreciation of this article, and I shall omit, therefore, mention of all details. After stating that the movements of the extremities, for example, are due to the functioning of a particular portion of the cortex and that in this region of the brain we find certain large motor cells in connection with motor tracts, the author goes on to state that in these motor cells we have the very center of the organ of mind. Apparently he feels confident that the volitional process has been definitely located in the cortex. That many psychologists or physiologists will agree with this seems extremely doubtful. The above will serve as an illustration of the way in which Flechsig refers a particular form of consciousness to a limited region of the brain.

The facts of pathology and neural degeneration under experimental conditions show that only a small portion of the cerebral cortex is constituted by the sense spheres; the remainder Flechsig deals with under the three types of associational spheres which he has distinguished. Psychology must lay stress upon the localization of sense impressions, and at the same time it must investigate the relations of the associational spheres to consciousness. In commenting upon the criticisms which have been passed on his contention that brain localization aids psychology, the author merely says that we must not begin with the wrong sort of question; that the facts speak for themselves; that he is convinced of the importance for psychology of the minute study of the brain with reference to the dependence of mental processes upon its functional activity; and that only further investigation of the subject is worth while.

The remainder of the article is concerned with the examination of our knowledge of certain motor and sensory defects which have been studied to advantage by brain physiologists, with the facts of ontogenic development in their bearing upon the subject in hand, and, finally, with the significance of studies of the phylogenetic series. In all of these facts the author finds something of value for psychology.

By way of general comment upon the article, it may be added that no one can deny that brain physiology is of more or less value to psychology if this subject be not defined as the science of the subjective fact. For those who contend that psychology is a purely introspective science, brain physiology can no more have value in advancing our knowledge of mental life than can the study of lower animals. Flechsig's article emphasizes certain of the important facts, physiological and psychological, which have been discovered by the researches of the brain physiologists, and indicates how they have influenced the study of psychic processes and modified psychological theories.

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Stages of the Discussion of Evolutionary Ethics. T. DE LAGUNA. *Philosophical Review,* September, 1905. Pp. 576-589.

The discussions of the bearing of the theory of evolution upon ethics have passed through several fairly distinct phases. First, there was the problem of the validity of morality in view of an evolutionary theory of the world, but it was soon realized that moral experience remains what it is whatever view we may take of the relation of man to the lower creatures; evolution may be read as a leveling up as well as a leveling down. Next, there arose the question of whether the principle of the struggle for existence could be assumed as the principle of moral development. Against such a purely selfish reading of the social struggle as might be represented by a Nietzsche it was maintained either that (*a*) the biological struggle was not a purely selfish one or that (*b*) morality arises in opposition to this natural law of the lower life and does not profess to follow its principle. The third phase of the discussion is complex and difficult to characterize briefly. It is represented by Spencer, Stephen, and perhaps Alexander, who attempt to express moral experience in biological terms, maintaining that rational action brings with it no new functions or ends, but is valuable only as effecting a better adjustment to the older biological ends. The intelligent agent recognizes the value of